

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the present application:

1. (Currently amended) A cache memory device ~~configured to store and stream media data for media data streaming~~, the cache memory device comprising a memory and a processor configured to store in said memory:

a session data file configured to store properties of a media stream including media data, wherein the properties ~~are selected from a class~~ include one or both of: an encoding scheme of the media stream and a duration of the media stream; and

a plurality of data object files, each data object file individually and directly accessible by a file system, each data object file comprising a data object configured to store a portion of the media data ~~from~~ of the media stream.

2. (Currently amended) The cache memory device of claim 1

wherein each of the plurality of data object files comprises a data object that comprises an object meta-data portion and a plurality of data chunks,

wherein the object meta-data portion is configured to store a number representing a total number of data chunks in the plurality of data chunks, and

wherein each data chunk of the plurality of data chunks ~~are~~ is configured to store a subset of the portion of the media data.

3. (Currently amended) The cache memory device of claim 2

wherein each data chunk comprises a chunk meta-data portion, a packet meta-data portion, and a plurality of packet payloads,

wherein the chunk meta-data portion is configured to store a number representing a total number of packet payloads in the plurality of packet payloads,

wherein the packet meta-data portion is configured to store a presentation time for each packet payload, and

wherein each of the plurality of packet payloads are configured to store only a portion of the subset of the portion of the media data.

4. (Currently amended) The cache memory device of claim 2 wherein each data object has an associated presentation time.

5. (Currently amended) The cache memory device of claim 4 wherein each data object has an associated duration time selected from the group:  
approximately: 5 seconds, 10 seconds, 15 seconds, 20 seconds, 30 seconds, 1 minute.

6. (Currently amended) The cache memory device of claim 2 wherein the object meta-data portion is also configured to store data ~~selected from the group~~ representing one or more of: a file format version, a beginning presentation time, an ending presentation time, a file size.

7. (Currently amended) The cache memory of claim 3 wherein the data chunk meta-data portion is also configured to store file offsets to adjacent data chunks in the plurality of data chunks.

8. (Currently amended) A method for storing in a cache memory, media data to be output as streaming media, the method comprising:

storing a first plurality of data objects in the cache memory, the first plurality of data objects configured to store a first plurality of data associated with a first encoding of ~~the~~ a media data stream, wherein each data object of the first plurality of data objects is directly addressable in the cache memory via an associated object handle, and wherein each data object of the first plurality of data objects is configured to store a portion of data ~~from the first plurality of data~~ of the media stream; and

storing a second plurality of data objects in the cache memory, the second plurality of data objects configured to store a second plurality of data associated with a second encoding of the media ~~data~~ stream, wherein each data object of the second plurality of data objects is directly addressable in the cache memory via an associated object handle, and wherein each data object of the second plurality of data objects is configured to store a portion of data ~~from the second plurality of data~~ of the media stream.

9. (Currently amended) The method of claim 8 wherein the first encoding of the media ~~stream data~~ and the second encoding of the media ~~data~~ stream have a different encoding property ~~selected from the class~~ among: target stream bit rates, target stream bit depth, thinning parameters.

10. (Original) The method of claim 9

wherein a data object of the first plurality of data objects comprises an object meta-data portion and a plurality of data chunks,

wherein the data object is configured to store a first portion of data from the first plurality of data

wherein the object meta-data portion is configured to store a number representing a total number of data chunks in the plurality of data chunks, and

wherein the plurality of data chunks are configured to store a subportion of data from the first portion of data.

11.(Original) The method of claim 10

wherein a data chunk of the plurality of data chunks comprises a chunk meta-data portion, packet meta-data portion, and a plurality of packet payloads,

wherein the data chunk is configured to store a subportion of data from the portion of data,

wherein the chunk meta-data are configured to store a number representing the total number of packet payloads in the plurality of packet payloads,

wherein the packet meta-data portion is configured to store a presentation time for each packet payload, and

wherein the plurality of packet payloads are configured to store a smaller subportion of data from the portion of data.

12.(Original) The method of claim 10 wherein the data chunk has a presentation time different from a presentation time for other data chunks in the plurality of data chunks.

13. (Original) The method of claim 12 wherein the smaller subportion of data has an associated duration of less than or equal to approximately a time selected from the group: 10 seconds, 30 seconds, 1 minute.

14. (Original) The method of claim 10 wherein the first portion of data are associated with a first logical segment of the media data.

15. (Currently amended) A ~~computer program product for a computer system including a processor and a memory~~ includes machine-readable storage medium for use in a processing system that includes a processor and a memory, the storage medium having stored thereon:

code that directs the processor to store a first plurality of data associated with an encoding of a first ~~source media~~ media stream in a first plurality of data objects in the memory,

wherein each data object of the first plurality of data objects is addressable in the memory by the processor via an associated first object filename, and wherein each data object of the first plurality of data objects is configured to store a portion of data from the first ~~plurality of data~~ media stream; and

code that directs the processor to store a second plurality of data associated with an encoding of a second ~~source media~~ media stream in a second plurality of data objects in the memory, wherein each data object of the second plurality of data objects is addressable in the memory by the processor via an associated second object filename, and wherein each data object of the second plurality of data objects

is configured to store a portion of data from the second ~~plurality of data~~ media stream[[,]]

~~wherein the codes reside on a tangible media.~~

16. (Currently amended) The machine-readable storage medium ~~computer program product~~ of claim 15

wherein a data object of the first plurality of data objects comprises an object meta-data portion and a plurality of data chunks,

wherein code that directs the processor to store a first plurality of data comprises:

code that directs the processor to store a subset of data from the portion of data from the first plurality of data into the plurality of data chunks; and

code that directs the processor to store a number representing a total number of data chunks in the plurality of data chunks into the object meta-data portion.

17. (Currently amended) The machine-readable storage medium ~~computer program product~~ of claim 16

wherein a data chunk of the plurality of data chunks comprises a chunk meta-data portion, packet meta-data portion, and a plurality of packet payloads,

wherein code that directs the processor to store the subset of data comprises:

code that directs the processor to store a smaller subset of data from the portion of data from first plurality of data into the plurality of packet payloads;

code that directs the processor to store a number representing a total number of packet payloads in the plurality of packet payloads into the chunk meta-data portion; and

code that directs the processor to store a presentation time for each packet payload in the packet meta-data portion.

18. (Currently amended) The machine-readable storage medium ~~computer program product~~ of claim 17 wherein the plurality of data chunks each have an associated duration of less than or equal to approximately a time selected from the group: 10 seconds, 30 seconds, 1 minute.

19. (Currently amended) The machine-readable storage medium ~~computer program product~~ of claim 16 wherein the plurality of data chunks each have a size less than or equal to approximately a size selected from the group: 64 Kbytes, 128 Kbytes, 512 Kbytes, 1 Mbyte.

20. (Currently amended) The machine-readable storage medium ~~computer program product~~ of claim 17

wherein a data object of the second plurality of data objects comprises an object meta-data portion and a plurality of data chunks,

wherein a data chunk of the plurality of data chunks comprises a chunk meta-data portion, packet meta-data portion, and a plurality of packet payloads, and

wherein code that directs the processor to store a second plurality of data comprises:

code that directs the processor to store a subset of data from the portion of data from the second plurality of data into the plurality of packet payloads;

code that directs the processor to store a number representing a total number of packet payloads in the plurality of packet payloads into the chunk meta-data portion;

code that directs the processor to store a presentation time for each packet payload into the packet meta-data portion; and

code that directs the processor to store a number representing a total number of data chunks in the plurality of data chunks into the object meta-data portion.

21. (Currently amended) A cache memory device configured to store streaming media data, the cache memory device comprising:

a processor;

a cache memory;

code that directs ~~a~~ the processor to receive streaming media data of a media stream from a streaming media server, the streaming media data comprising a series of packets of media data of the media stream, the packets of media data including header data and payload data of the media stream;

code that directs the processor to separate the header data from the payload data;

a session data file storing a portion of the header data, wherein the header data ~~are selected from a group~~ include one or both of: encoding scheme and duration; and



a plurality of data objects storing the payload data, wherein each data object of the ~~first~~ plurality of data objects is directly addressable in the cache memory via an associated object handle, and wherein each data object of the ~~first~~ plurality of data objects stores a portion of the payload data of the media stream.

22. (Currently amended) The cache memory device of claim 21

wherein a data object from the plurality of data objects comprises an object meta-data portion and a plurality of data chunks,

wherein the object meta-data portion stores a number representing a total number of data chunks in the plurality of data chunks, and

wherein each data chunk of the plurality of data chunks stores a subset of the portion of the payload data.

23. (Currently amended) The cache memory device of claim 22

wherein a data chunk from the plurality of data chunks comprises a chunk meta-data portion, a packet meta-data portion, and a plurality of packet payloads,

wherein the chunk meta-data portion stores a number representing a total number of packet payloads in the plurality of packet payloads,

wherein the packet meta-data portion stores a presentation time for each packet payload, and

wherein each of the plurality of packet payloads stores only a portion of the subset of the portion of the payload data.

24. (Currently amended) The cache memory device of claim 21 wherein each data object is associated with a presentation time.

25. (Currently amended) The cache memory device of claim 21 wherein the streaming media data are in a format selected from the group: Microsoft Media Streaming-compatible, Real Time Streaming Protocol-compatible, RealSystem-compatible, QuickTime-compatible.

26. (Currently amended) The cache memory device of claim 21 wherein code that directs the processor to receive streaming media data from a streaming media server comprises code that directs a processor to receive streaming media data from the streaming media server on a port selected from the group: 554,2001, 1755,80.

27. (Currently amended) The cache memory device of claim 21 wherein object handle comprises an object filename.